REMARKS

The Claims

With entry of the present amendment, claims 1-4 and new claims 15-18 will be pending in this case. Applicants have cancelled claims 5-8 and claims 9-14 have been withdrawn.

Claim Rejections – 35 USC § 101

Claims 5-8 stand rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, being presented as "use" claims

Applicants have cancelled claims 5-8 with this Amendment.

Claim Rejections – 35 USC § 112

Claims 1-8 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims were objected to as being indefinite because "it is not clear if Applicant is claiming a method or a composition."

Specifically, the Examiner has objected to the use of the terms "4-6% moisture," "greenish white," and "mild salty flavor" in Claim 1.

Applicants have addressed the objection by deleting reference to the color and flavor of the composition and by clarifying amendment indicating that moisture content is of the composition. While Applicants are deleting references to color and flavor in Claim 1, Applicants note that color and flavor references are objective, sensory terms commonly used in sensory analysis of vegetation-derived or plant-derived products and should be readily understood by skilled artisans learned in the processing and handling of vegetation-derived or plant-derived products. Nonetheless, in the interest of moving the case to early allowance, Applicants have

removed these references from Claim 1, reserving the right to introduce the deleted terms in claims of a divisional or other continuation application. Further Applicants submit that no new subject matter is added by deletion of these limitations from the claim and that the invention as claimed in amended Claim 1 is supported by the specification.

With respect to Claims 5-8, the Examiner has objected to these claims as use claims; and as previously mentioned, Applicants have cancelled Claims 5-8 in this Amendment. .

Claim Rejections – 35 USC § 102

Claims 1-8 stand rejected-under 35-U S 102-14 as being anticipated by Agnihotri et al. (1996, Indian J. Experimental Biology, 34, 712-715) and as evidenced by Tuninst (http://www.tuninst.net/MyanMedPlants/T1UfamULauraceae.htm#Cinnamomumzeylanicum).

With respect to Agnihotri et al., the Office Action states:

> Agnihotri et al teaches cinnamomum zeylanium extracted with hexane and tested for antibacterial properties using gram positive and gram negative bacteria (Abstract). The whole plant of cinnamomum zeylanium, including the fruit is extracted with hexane.

As previously noted, Applicants have cancelled claims 5-8.

Agnihotri et al is a journal article concerned with and entitled "A Novel Approach To Study Antibacterial Properties Of Volatile Components Of Selected Indian Medicinal Herbs." The article states, "This paper presents a study of the effect of volatile components of the commonly used components of Indian medicinal herbs using a novel approach." See Agnihotri et al, at p. 712. Applicants submit that Agnihotri et al teaches only the use of commonly used components of Cinnamomum zeylanicum. Further, Agnihotri et al contains no teaching or

suggestion of the use of the unconventional parts (i.e., fruits) of Cinnamomum zeylanicum, hexane extraction of dried or powdered fruits, or a composition comprising an antibacterial fraction obtained by solvent extraction of powdered ripe fruit of Cinnamomum zeylanicum.

With respect to the use of fruit of cinnamomum zeylanium, the Office Action states:

> The whole plant of cinnamomum zeylanium, including the fruit is extracted with hexane. Fruit can be unripe or ripe. Unripe fruit would have the greenish-white color fruit, fruit is green when young (see http://www.tuninst.net/MyanMedPlants/TIUfamULauraceae.htm#Cinnamomum-zeylanicum, page 10, Plant identification characters). As evidenced by Tuninst the relative color of greenish white, 4-6% moisture, and mild salty flavor of Cinnamomum zeylanium young fruit would inherently have the claimed color, flavor, and moisture content. Color and flavor are relative terms and can be opinions differing from person to person.

Applicants submit that "Plant identification characters" at page 10 of Tuninst do not teach the use of the fruit or identify any part of the cinnamomum zeylanicum plant as useful for any purpose, including extraction of an antibacterial fraction according to the invention. Rather the plant discussed at page 10 of Tuninst is cinnamomum obtusifolium, not cinnamomum zeylanicum. Cinnamomum zeylanicum is specifically discussed in Tuninst at pages 19-21; at page 21, Tuninst identifies the useful parts of the plant as bark and seed oil. There is not any mention of the fruit, ripe or unripe, as being useful. Upon detailed review, Applicants submit that no where in Tuninst, pages 1-24 is the fruit of cinnamomum zeylanicum identified as a useful or conventionally used part of the plant.

Applicants submit that Agnihotri et al. does not teach the invention as claimed in amended claim 1 or new claims 15-18 and that Tuninst adds nothing to evidence the invention as claimed prior to or subsequent to the present amendment. Further, Applicants submit that neither claims 1-4 nor new claims 15-18 are anticipated by Agnihotri et al. or further evidenced by Tuninst.

In the Office Action, it was stated that Tuninst evidenced that young fruit of cinnamomum zeylanicum would inherently have the claimed color, flavor, and moisture content. Applicants see no support in Tuninst for these statements. Even if the statements were accurate, Applicants see no necessary correlation between the color, flavor and moisture content of fruit and that of the claimed composition. Further, contrary to these statements, Applicants composition is prepared from ripe fruit which is noted as being purplish in color and the greenish-white color of a hexane extracted composition could not be anticipated from the color of the fruit. The purplish color of ripe cinnamon fruit is noted in Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333) which was cited in the Office Action.

Claim Rejections – 35 USC § 103

Claims 1, 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333) and Tuninst (http://www.tuninst.net/MyanMedPlants/T1UfamULauraceae.- htm#Cinnamomum-zeylanicum). As previously noted use claim 5 has been cancelled.

The Office Action states:

> Jayaprakasha et al. teaches fruits of Cinnamomum zeylanicum were used for hydrodistillation (Experimental, Plant material and hydrodistillation).

However it does not teach 4-6% moisture, greenish white color, and mild salty flavor.

The ripe fruit of Cinnamomum zeylanicum is dark purple (see Jayaprakasha et al., Experimental, Plant Material). Therefore, the greenish white color fruit is the unripe fruit of Cinnamomum zeylanicum.

Jayaprakasha et al. teaches a process for obtaining volatile oils by hydrodistillation (steam distillation) of cinnamon fruit and that the oils obtained by this process is "light yellow" and possesses" a sweet floral odour" and is concerned with steam distillation, which is not a solvent extraction process. Further, Jayaprakasha et al is concerned with producing volatile oils, not a solvent extraction of cinnamon fruit as claimed. Applicant submits that Jayaprakasha et al does not teach solvent extraction and does not contain any relevant teaching that supports the rejection of claim 1 under therefore 35 U.S.C. 103(a).

While Applicants have deleted reference to color and taste from the amended claims, Applicants submit that the notation of color and odor characteristics of the volatile oils by Jayaprakasha et al. is consistent with the common use in the art of such objective, sensory terms in sensory analysis of vegetation-derived or plant-derived products. Further, the oil produced by Jayaprakasha et al. is dried over anhydrous sodium sulfate and the end product would not have any measurable moisture content.

Applicants have previously addressed the Tuninst reference and here incorporate their above-remarks regarding Tuninst. The teaching of Tuninst that young cinnamon fruit is green in color does not cure the deficiencies of Jayaprakasha et al. and the combination would neither yield the composition of amended claim 1 nor of new claims 15-18 nor a process according to the invention.

Claims 1-2, 5-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333) and Tuninst (http://www.tuninst.net/MyanMedPlants/TIL/famL/Lauraceae.htm#Cinnamomumzeylanicum) as applied to claims 1, 5 above, and further in view of Poole et al. (1994, Analyst, 119, 113-120). Claims 5 and 6 have been cancelled.

Applicants have previously addressed the Jayaprakasha et al and the Tuninst references and here incorporate their above-remarks regarding Jayaprakasha et al and Tuninst. These references alone and in combination do not teach or disclose a composition or process according to the invention nor do they teach or disclose a solvent or hexane extract of ripe cinnamon fruit.

In the Office Action, Poole et al. is cited as a third reference combined with Jayaprakasha et al and Tuninst. The Office Action states:

> Poole et a. teaches cinnamon has numerous uses in the food, pharmaceutical and cosmetic industries (page 113, left column, first paragraph), where the source of cinnamon is from Cinnamomum zeylanicum (page 113, right column, first paragraph). The components in Cinnamomum are cinnamaldehyde, cinnamyl alcohol, cinnamyl acetate, eugenol, cinnamic acid and 2-methoxycinnamaldehyde (page 114, left column, lines 15-18). Separation of cinnamon extract were performed on silica-gel layers with hexane-triethylamine, hexane-chloroform (page 115, Thin-layer Chromatography).
>
> Hexane is used to extract compounds from Cinnamomum zeylanicum and unripe fruits of Cinnamomum zeylanicum can be used to extract compounds. Thus, an artisan of ordinary skill would reasonably expect that hexane could be used as the types solvent to extract fruits of Cinnamomum zeylanicum taught by

the references. This reasonable expectation of success would motivate the artisan to use hexane in the reference composition. Thus, using hexane is considered an obvious modification of the references.

Poole et al. mentions a list of commonly used cinnamon plant parts or product such as the young shoots, outer bark, tubular inner bark, essential oil, inner stem bark, stem bark oil, leaf oil and root bark, but contains no mention of the use of cinnamon fruit. Poole is concerned with providing a method for true qualitative determination of volatile oils obtained by steam distillation (as in Jayaprakasha et al.) and, more specifically, with providing an alternative assay method to the quantitative methods such as gas-liquid chromatography combined with mass spectrometry and thin-layer chromatography (TLC) that had then been commonly used to identify the volatile components of cinnamon derived essential oils.

Poole et al. discloses a process involving samples prepared from stem bark oil and ground cinnamon sticks and dried inner stem bark mixed with acetonitrile. The only disclosed use of hexane compounds was as solvent systems for development of silica-gel plates for TLC analyses. Applicants submit that thin layer chromatography with hexane-triethylamine or hexane-chloroform is not a process for producing a composition according to the invention and is different from a process involving extraction of bioactive fraction using solvents such as hexane.

Applicants submit that the combination based on Poole et al will not result in the invention as claimed because of Poole et al does not cure the previously noted deficiencies of Jayaprakasha et al and Tuninst. Further, the combination is not proper as Poole et al is from the field of qualitative and quantitative analysis of volatile oils and is not related to preparing compositions having bioactive function nor to such compositions. One skilled in the art would not look to the teachings of Poole et al to combine with Jayaprakasha et al and Tuninst with any

prospect of arriving at the invention of the application; and the invention does not result from the combination.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333), and Tuninst (htto://wwvv.tuninst.net/MvanMedPlants/TIUfamULauraceae.htm#Cinnamomumzeylanicum) and Poole et al. (1994, Analyst, 119, 113-120) as applied to claims 1-2, 5-6 above, and further in view of Valero et al. (2003, International Journal of Food Microbiology, 85, 73-81). Claims 5-8 have been cancelled.

Applicants have previously addressed the Jayaprakasha et al., Tuninst, and Poole et al. references and here incorporate their above-remarks regarding Jayaprakasha et al., Tuninst, and Poole et al. These references alone and in combination do not teach or disclose a composition or process according to the invention nor do the teach or disclose a composition comprised of a solvent or hexane extract of ripe cinnamon fruit.

Regarding Valero et al., the Office Action, states:

> Valero et al. teaches major antimicrobial components of spices and their essential oils are cinnamic aldehyde and eugenol in cinnamon (Introduction, right column). Antimicrobial activity tested against B. cereus strain INRA L2104 (page 74, left column, second paragraph). The growth inhibition of B. cereus spores was achieved by using 25 microliter of essential oil of cinnamon to every 100 mL of carrot broth (page 77, right column, first paragraph) and at concentrations from 5, 10, 25, 100, 200 microliter/100 mL (page 75, Table I).

Applicants submit that these statements about the teachings of Valero et al do not serve to correct the deficiencies of any combination of the Jayaprakasha et al., Tuninst, and Poole et al.

references. Jayaprakasha et al still is concerned with hydrodistillation process. Tuninst does not teach or disclose a solvent extraction method involving cinnamon fruit, ripe or unripe and the color of young cinnamon fruit has been shown not to be relevant to the color of extract. Further, Applicants amendment to delete color reference from the claims further renders moot any teaching of Tuninst. Poole et al does not teach the use of hexane to extract bioactive fractions from conventional or unconventional parts of the cinnamon plant and makes no reference to the use of hexane compounds for such extraction. Rather Poole et al teaches use of hexane compounds as solvents for GLC and TLC chromatography of acetonitrile solvent extracts. These teachings provide no motivation for the skilled artisan to take a hydrodistillation process of Jayaprakasha et al and modifying it in anyway to arrive at a composition or a process according to the invention as claimed. The teachings of Valero at al does not provided any further motivation and the overall combination of these four references still do not yield Applicants' invention as claimed.

In view of the foregoing, Applicants respectfully submit that this application stands in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

The Commissioner is hereby authorized to charge any additional filing fees required to Deposit Account No. 061910.

Respectfully submitted,

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